

AMERICAN NURSERYMAN

The National Journal Of Commercial Horticulture



Circulating Throughout the United States, Canada and Abroad, Featuring Commercial Horticulture in all its Phases of Nursery Stock, Orchard, Landscape Planting, Distribution. Published Semi-Monthly by American Fruits Publishing Company, Inc.



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IN THIS ISSUE

SOME RARE PRODUCTS OF AN AMERICAN NURSERY
THE LARGEST TREE COLLECTION IN THE WORLD
DEVELOPMENT OF A LARGE CALIFORNIA NURSERY
ANNUAL MEETING OF THE WESTERN WALNUT GROWERS
AN EDITOR'S IDEA OF A MODERN PRESS AGENT
THE STATUS OF MINNEAPOLIS AS A FRUIT CENTER
COMMENT ON THE CLOSING OF A YEAR'S RECORD
THE APPLE THE BEST FRUIT FRIEND OF THE PEOPLE
NEWS ITEMS IN CURRENT TRADE CIRCLES
SUGGESTIONS ON STANDARDIZING RETAIL PRICES
SOME TRADE ACCOMPLISHMENTS OF RECENT TIMES
C. W. BEERS HORTICULTURIST IN A NEW FIELD
CULTURAL TOPICS OF INTEREST TO NURSERYMEN
CURRENT EVENTS IN NURSERY AND ORCHARD ROWS
NURSERYMEN IN A CONFERENCE AT DES MOINES
WOULD LET GOVERNMENT DO THE EXPERIMENTING
CALIFORNIA NURSERY COMPANY'S PROPERTY SOLD
A NEW HARDY RASPBERRY OF COMMERCIAL VALUE
RESULT OF A SUIT AGAINST A NURSERY COMPANY
SEEDLING PLUM IS WINNER OF MINNESOTA PRIZE

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RALPH T. OLCOTT
Editor and Manager

AMERICAN FRUITS PUBLISHING COMPANY, INC.

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Its news and advertising columns bristle with announcements from every news corner of the Continent.

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American Nut Journal	Devoted to Nut Culture.....	193	Koloos & Co., A.....	Announcement	191
Audubon Nurseries	Ornamental Nursery Stock.....	195	Landscape Architecture.....	By Samuel Parsons.....	195
Bailey's Cyclopedia	Standard Work	193	Lindley Nursery Co., J. Van..	N. C. Peach Seed.....	193
Bernardin, E. P.....	General Nursery Stock.....	194	Maryland Nut Nurseries.....	Hardy Nut Trees.....	194
Berkmans Co., P. J.....	Ornamental Nursery Stock.....	195	Mount Arbor Nurseries.....	Apple Seedlings	182
Crayton & Sons, F. M.....	Tree and Shrub Seeds.....	193	Nursery Trade Directory	Reference Book	193
Chase Company, Benjamin..	Nursery Labels	191	Nat. Florists' Board of Trade.	Collection Accounts.....	184
Cole, W. B.....	Ornamental Nursery Stock.....	195	Norman, T. R.....	Clematis and Shrubs.....	193
Conard & Jones Company...	How to Grow Roses.....	195	Onarga Nursery Company...	Lining Out Stock.....	193
Dintelmann, L. F.....	General Nursery Stock.....	193	Plant Propagation	Nursery Practice	195
Felix & Dykhuis	Holland Nursery Stock.....	191	Portland Wholesale Nur. Co..	General Nursery Stock.....	193
Garden Hand Book.....	Popular Manual	194	Retail Business Chance	In the West.....	193
Henry, D. H.....	General Nursery Stock.....	194	Roiker & Sons, August.....	European Nursery Stock.....	193
Hobbs & Sons, C. M.....	General Nursery Stock.....	182	Ross-Gould Company.....	Mailing Lists	195
Hood & Company, W. T.....	General Nursery Stock.....	184	Simpson & Sons, H. M.....	Cherry Trees	193
Horticultural Advertiser...	British Trade Periodicals.....	184	Skinner & Company	General Nursery Stock.....	193
Howard Rose Co.....	Own Root Field Grown Roses.....	193	Smith Company, W. & T.....	General Nursery Stock.....	182
Iigenfritz, Sons Co., I. E...	General Nursery Stock.....	184	Wild Bros. Nursery Co.....	Peonies, Mallow Marvels	195
Jackson & Perkins Co.....	Ornamental Stock	182	MONTHLY GUIDE	Classified Advertisements	184

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BY
Dr. L. H. Bailey



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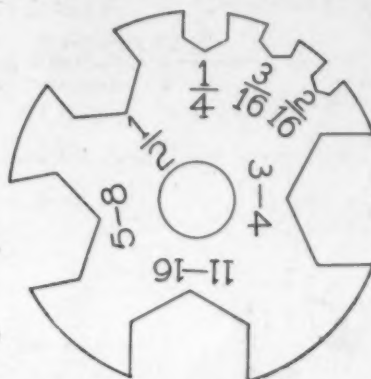
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Rare Products of An American Nursery

Semi-Tropical Fruits and Blossoms Growing In a Remote Corner of Our Country---The Wonderful Delta of the Rio Grande

By ELTWEED POMEROY, Donna, Texas—Continued from December 1st issue

ROSELLE—ON UNUSUAL FRUIT

I hardly know wheather to call the Roselle or Jamaica Sorrell (*Hibiscus Sabdariffa*) a fruit or vegetable. It is an annual plant growing from seed each year and ripening its fruit in November. It is a beautiful plant growing 6 and 7 feet high with dark green leaves, a lovely yellow flower somewhat resembling the northern mallows which also belong to the hibiscus family and the seed pod is from one to two inches long of deep maroon red and surrounded with a calyx of fleshy deep red leaves. The calyx is what is eaten and it contains probably more pectin than any other plant which grows; or if not more, is second only to the guava. Pectin is what makes jelly when properly cooked. One year, I made and sold between two and three tons of Roselle jelly and jam and dried several hundred pounds and harvested over 100 pounds of seed from less than 3 acres of this plant. It makes a delicious jelly or jam of a peculiar but fine acidity and bright red color. Unlike any other jelly producing fruit, it can be dried and a month, or a year later, soaked and jelly made. I have dried and sold hundreds of pounds of the dried calyxes. It takes nearly a bushel of the fruit with seed in it, to make a pound of the dried but the pound of dried will make 25 to 30 pounds of jelly and jam. I think this fruit has a big future when carefully grown and perfected. The only draw-back is that it will not always ripen till our cool weather commences at end of November and I have developed an earlier ripening variety and the Bureau of Plant Industry has gotten seed from the Phillipine Islands called Temprano roselle which is said to ripen from two to four weeks earlier.

THE PAPAYA

Another very curious and valuable fruit is the papaya (*Carica Papaya*) or tree melon. This is a very quick-growing but short lived tree with large irregular cut leaves bearing luscious melons at the juncture of the leaf and trunk. These grow as large as a large cantelope but are usually oval. They can be picked when fully grown but green and will ripen off the tree and to be eaten should be left till yellow and so that the finger punctures the skin. Then put on ice over night, cut in half, scoop out the seeds and eat as one would a melon. The finer varieties of these are delicious and they contain papain which aids digestion. A hearty meal can be eaten and if followed by a half papaya, no bad effects follow. One of the old residents here had charge of a baby

with weak digestion and never fed anything without cooking a slice of the papaya in it and the baby thrived on this diet, over-coming the weakness of the stomach. It is likely that this fruit could be grown on large scale to extract this digestive papain and it is certain that when once known, it could have a large sale north because it can be picked when green and hard and mature on the consumer's shelves. It is a short lived tree but very rapid growing. I have fruit ripening now in October from trees the size of a lead pencil planted in March last. These trees are 6 and 7 feet tall and have trunks 8 or 10 inches in diameter. The tree is usually dioecious which means that it is male and female, the female bearing the fruit and the male being necessary for fertilization. But I have trees whose flowers contain both pistils and stamens and are setting on fruit so those are monoecious.

THE DATE PALM.

Date palms have borne fine fruit here but they have been seedlings and like all seedlings, are very uncertain as to the quality of the fruit and these are not of the best. This is true of seedling apples, peaches, etc. The date palm is also dioecious and in Africa it is customary to plant one row of male trees for every twelve rows of female trees. We have no date groves here, but enough of the isolated seedling trees have fruited to demonstrate that the growth of fine varieties is a most promising experiment. When the war is over, I hope to join with a friend in bringing from Africa a lot of rooted suckers from female fruiting date palms of the Deglet Noor and other fine varieties. I have visited the U. S. Government date farm at Tempe, Arizona, where they have sold fruit at the rate of close to \$2,000 per acre. Mr. Simmons, the gentleman in charge, told me that 10 acres in dates will make more than 160 acres in alfalfa and that its owner would be behind about \$3,000 at the end of six years but ahead over \$11,000 at the end of 12 years. I see no reason why we should not have like results here.

OTHER TROPICAL FRUIT

Space forbids anything more than mention of the Carissa (*C. Bispinosa* Amatungula, a low growing shrub very beautiful bearing a brilliant red fruit delicious for jellies, preserves, etc.; the Surinam Cherry (*Eugenia Uniflora*) a dwarf tree with glossy evergreen leaves bearing a ribbed fruit resembling a tomato and eaten raw and made into preserves; the Ties Egg Fruit (*Lacuma Nervosa*) a small tree with spreading branches and yellow egg-shaped fruit with

flavor of an aromatic, candied egg; the Kel Apple (*Aberia Caffra*) a spiny shrub with acid fruit for pickles and preserves; the Barbadoes Gooseberry (*Pereskia Aculeata*), a thorny vine allied to the cactus but with true leaves and bearing a yellow sub-acid fruit; the Loquat (*Eriobotrya Japonica*) a handsome large-leaved evergreen tree bearing a fruit the size of a wild-goose plum, bright yellow and sub-acid; the Sapodilla (*Achras Sapota*) a bushy evergreen tree with fruit the size and color of a russet apple and very sweet, the chewing gum of commerce is made from its sap; the Anona or Custard apple (*Anona Cherimoya*) a most delicious sub-tropical fruit about the size of a large apple and with a hard rind which must be broken when the custard-like pulp of delicious flavor can be eaten; the white Sapota (*Casimiroa Edulis*) whose fruit has a melting, peach-like flavor, etc.

NUT TREES

Pecans do well when planted where their roots can get down to water and one grove is now bearing profitable crops. The English walnut is still an experiment but some at my farm, La Granja, look as if they would be successful. Almonds are a failure, but there is a new Australian nut, the Macadamia Ternifolia, which looks as if it would be successful.

FLOWER BULBS

Before I close, I must say a word about the growing of flower bulbs for northern sale. This is a natural bulb country for all save the varieties which require cold soil to go into a winter dormancy and the very small bulbs which die if the top soil dries out. With the exception of a few limited acres on our two ocean coasts, the summer climate of the United States is tropical in the brilliance and continuousness of its sun shine, its heat both in the air and in the top soil and in its occasional droughts. This is specially true of the great Mississippi Valley extending from the Alleghanies to the Rockies. It differs radically from the summer climate of most of Europe, and flowers doing well in the moist, cloudy summers of England often do not do well here. The Rio Grande Delta will never have as high a temperature as is frequent in Kansas, Missouri and Illinois in July and August, but its climate is that of the great Mississippi Valley intensified and lengthened; hence it follows that the flowers which do well there from May to October, grow splendidly here almost all the year around and can be multiplied here at a much faster rate than in the shorter seasons north; and as frost

Largest Tree Collection In the World

By J. HORACE MCFARLAND, President American Civic Association, in Chicago, Ill., Post

I.

Well-informed readers will remember something of the great tree garden at Jamaica Plain, near Boston, organized in 1882, in a memorable contract between the city of Boston and the trustees and fellows of Harvard University, for "a thousand years * * * and so on from time to time forever." To the genius and persistence of Charles Sprague Sargent with the co-operation of the elder Frederick Law Olmsted are due this establishment of what is probably the most permanent arrangement in the world.

Kew Garden, England's older establishment of the same sort, depends upon a yearly parliamentary grant, and there is no contractual provision for its continuance. The Arnold arboretum, on the contrary, has the maintenance of its roads and walks by the City of Boston automatically provided for in the contract referred to, while its work is less dependent upon the funds of Harvard University than upon an endowment being formed around the original bequest of the New Bedford merchant, James Arnold, for whom it is named.

Largest Collection in World

The years that have elapsed since the beginning of the effort to establish in the arboretum every tree or woody shrub in the world found to be hardy in the climate of Massachusetts have done what only time can do. The trees and shrubs have attained size, and are taking on the maturity of their years, while those not hardy have been

never gets into the ground here, we can have ground storage of our flower bulbs and be sure of delivering fresh bulbs in the spring when wanted. We do not have to store them all winter lest they freeze in the ground and run risks of rotting and drying out.

The intrinsic value of this business is shown by the fact that La Granja, my bulb farm, shipped 3,000 to 4,000 bulbs in 1911-12, 15,000 to 18,000 season of 1912-13, 35,000 to 40,000 season of 1913-14, 100,000 to 125,000 season of 1914-15 and about 200,000 season 1916-17 and that on less than ten acres I now have over a quarter million bulbs growing. These are cannas, tuberose, amaryllids of about forty varieties, narcissus, hemerocallis, etc.

FLOWER SEED

Another horticultural development easily possible is the growing of many flower seeds. The great bulk of many kinds of flower seeds were imported from Germany before the war and now all seedsmen are dropping out varieties because they cannot get the seeds. The right person with a few acres and irrigation water, could harvest thousands of dollars of fine flower seeds during our nearly cloudless summer. It waits like many other opportunities for the right man, or perhaps I had better say woman as such flower growing and seed gathering is specially suited to women.

A PROPHECY

This wonderful little Delta is a triangle measuring not 100 miles from the mouth of the Rio Grande River to a little beyond Mission at its west end and only a little over 50 miles from Brownsville on the Rio Grande north to Raymondsville almost at its north end, containing only about a half million acres or about a third of Rhode Island. Three years ago before our Farmer's Con-

eliminated. Meanwhile the unremitting pursuit of the object of the institution by its indefatigable founder and director, Professor Sargent, has resulted in making the plant collection probably the largest and most valuable of its kind in the world, to say nothing of the vast herbarium and the important library also included.

Inasmuch as the Arnold arboretum corresponds and exchanges with governments and botanical gardens all over the world, it might be expected that the great war would seriously hamper its foreign relations. Until quite recently, however, there has been only delay, and not interruption, in these relations.

The German observers of plants are not of the autocratic caste in that unfortunate empire, and the Holland back door has been useful for other things than dyestuffs and contraband of war! The rest of the world has continued its interchange, and important additions to the collection, the herbarium and the library have been made in the last three years.

Economic Value Shown

But as certain foreign sources of supply of woody material used in the arts and industries of America are either restricted or shut off, the economic value of such an institution as the Arnold arboretum is made more apparent. Here is the one place in all America where definite comparisons may be made, where full information is available, and where indications toward American pro-

gress, I made the prophecy that inside of twenty-five years, this Delta would contain as many people as are now in the whole of Texas or between three and four million; and Rhode Island, which is three times as large as our Delta, could be contained two hundred and forty times in Texas. It requires to be known to be appreciated.

In California Nurseries

One of the largest nurseries in California is that of the Silva-Berghtholdt Company, at New Castle. Mr. Silva—one of the pioneers of California—grew in a small way nursery trees and plants, and later his son became associated with him under the firm name of C. N. Silva & Son. Mr. Silva, Sr., retired about 1900, when Mr. Berghtholdt became half owner of the nursery and later its manager. In 1903 Mr. Silva, Jr., retired and J. F. Dudley secured his interest. The firm or incorporate name has been maintained and Mr. Berghtholdt has continued as manager of the nursery and fruit packing interests which became a feature of the concern, and Mr. Dudley has been manager of the orchards, of which the firm controls a large number.

This feature of the business made necessary a large packing house which has added to the length of packing house row. In this peculiar mountain town the packing houses along the sidings are really the center of the town. Winding down the hill from them is a narrow street more like an alley-way, along which the post office and a few other business houses have been erected.

The nurseries are located in different sections of the foothills, the larger one nearly midway between Newcastle and Lincoln over on the Valley line running up the northern Sacramento Valley and to Port-

duction of such woody material may be obtained.

Not only may the trees and shrubs themselves be compared, but the world's literature concerning them in all languages, may be consulted. The library of the arboretum is, as I have indicated, very large and comprehensive, and is constantly being increased through intelligent effort. For instance, in an editorial article upon "Roses in the Arnold Arboretum," which I wrote for "The 1917 American Rose Annual," I mentioned the fact that the library included 353 titles upon the rose, in more than a dozen languages, all "cross-indexed by the species cited," and therefore easily available to the student.

Missing Book Obtained

Incidentally, I mentioned in detail his desire for what Professor Sargent believed to be "the only important rose book not yet in the library," and it was an evidence of the growing interest in this great institution to be informed within a few weeks of the publication of the Rose Annual that a public-spirited rose amateur had promptly presented to the arboretum a perfect copy of the missing title.

Another evidence that the great war has not suspended investigation, exploration and interchange is found in the fact that during 1916 alone some 10,447 sheets were added to the herbarium which is in one effect one vast volume of illustrated plant knowledge, open to any student from any land.

This nursery has some 320 acres, much of which is planted to varieties of deciduous nursery trees and to olives. The plan has been to raise but one crop of nursery stock. The same soil the following year has been reset to orchard trees, and some of the finest orchards of Placer County were formerly nursery plots for this company.

Henry Reinecke has direct charge of the nursery work. He is a native son, born in Placer County, entirely satisfied with it as offering him the best of the earth, and scarcely ever out of the county.

Besides the one 320-acre nursery referred to there are three others at other points. The nurseries produce around 1,000,000 deciduous trees every year, some years as low as 800,000, others years going to as high as 1,200,000.—California Cultivator.

Subsoiled Nursery Plots

R. L. SCOTT, Sec'y, Citronelle Nursery & Orchard Co., Alabama

In view of our own experience with it, we believe in recommending dynamite to our nursery customers for tree planting, subsoiling and drainage work. Sometime ago, we subsoiled a tract in which we were starting some young nursery stock, blasting altogether 1200 holes. The results obtained on this plot have convinced us that it pays to use dynamite for breaking up hard soils on plots on which it is intended to set out nursery stock. When the little trees are transferred to their permanent homes, we also believe in using dynamite to blast the holes because it tends to give the trees a good start and make them grow more rapidly. Of course, this applies to soils which are any way hard. For the loose and open soil types, we do not consider dynamite necessary.

Annual Meeting Western Walnut Association

By KNIGHT PEARCY, Salem, Oregon

The annual meeting of the Western Walnut Association was held at McMinnville, Oregon, Nov. 7, 8 and 9. The attendance was large and the program excellent. The largest and most complete exhibit of walnuts and filberts ever shown in the West was on exhibition. Fourteen varieties of filberts, a large number of named walnuts and a big collection of various seedlings that the owners thought to be promising, were included in the exhibit.

Prof. Lewis of the Oregon Agricultural College submitted a preliminary report for the committee on grafting waxes. He distributed to committee members some fifteen substances to be tested out as grafting waxes. The report is far from being a final recommendation, as the experiments have continued but a single season. The committee is seeking a wax that is easy to apply, will not run, is cheap and which has no bad effects on the scion. Common waxes are not desirable for walnut grafting, as they flake and get hard and crack. M. McDonald reported to Prof. Lewis that his nursery had found grade D asphaltum to be most satisfactory of the waxes tested. He reported that it got soft on hot days but did not run and that the per cent of set was good where it was used. With Prof. Lewis the best waxes proved to be Snow, Oregon Standard and Grades D & E asphaltum, with odds slightly in favor of grade E asphaltum. Whitewash over the waxes seemed to be of value. Asphaltum is cheap and easy to apply. The others are costly. Snow wax is a wax made of resin, 5 pounds, beeswax 1 pound, charcoal $\frac{1}{2}$ pound, and raw linseed oil 1 gill. The agricultural college will do more work on these four waxes next year.

Parawaxes were found to run too much in the top of the trees but may be good in shady locations. Grade D asphaltum is right to spread at 220 to 230 degrees, Snow wax at 180-190 degrees and Oregon Standard at 170 to 180 degrees.

Prof. Lewis stated that there was little definite information to be had regarding pollination of the walnut. He himself would not plant an orchard of one variety although he could not be sure but that some varieties might be entirely self-fertile. The college orchard is not yet old enough to enable him to conduct experiments along this line, but he suggested that all members should watch the blooming dates of their varieties, find the length of season of blooming and how long the catkins hang on, and report these findings at the annual meetings of the association. He suggested that some catkins may produce much more pollen than others so that a heavy producer of catkins was not necessarily a heavy producer of pollen. He warned against throwing out varieties that are otherwise valuable ones simply on account of being poor yielders, as a little experimentation may show that with proper companions as pollinators the varieties may prove to be heavy yielders.

Senator McNary gave instructions on grafting over tardy trees. He described his methods in an article in the *American Nut Journal* early in the year. Senator McNary stated that among the twenty-four varieties of filberts that he is testing the most promising are Barcelona, DuChilly and Mervielle de Bollweiller. His Barcelona shed their pollen twenty to twenty-four days before the

DuChilly do. He believes that the Avelines are good pollinators.

A. A. Quarnberg had on exhibition a jar of Du Provence filberts. These are a small to medium size nut, but the tree is a very prolific yielder. At the rate that Mr. Quarnberg's tree bore, an acre would yield one and a half tons.

The Dundee district will produce around thirty-five tons of nuts this year. They are receiving 25c for No. 1 grade and 21c for No. 2. Their grading gives slightly larger size than the California grades.

In his paper on "Frosts and Weather Effect on Nut Culture," Ferd Groner stated that no one night's frost will kill all the catkins, for they do not all open at one time. When the catkin is open it is susceptible to frost injury, but it will stand considerable frost before it opens. He never knew of a walnut tree being killed by frost when it was dormant; but when not dormant they are liable to injury, especially on the low lands.

In twenty years the Willamette valley has had three frosts that came at times when they killed the young trees, one of these frosts occurring in September of 1916. In his nursery last year he saved only 1400 out of 10,000 grafted walnut trees. In the same field he had 30,000 California black seedlings and lost about three per cent of them. Many of his catkins were deformed and without pollen this year due to the frost. Gladys and Meylan suffered more in this respect than Franquette. In speaking of blight Groner stated that nuts are most subject to its attacks while the style is still on the nut; that 90% of the blight occurs at that end of the nut.

George Dorris, who has the largest filbert planting in America, discussed his twelve years' experience in filbert culture. He has trees that have borne 40 pounds of nuts in a season. He asserts that there is money in the game if one gets only ten pounds per tree, the trees being planted one hundred to one twenty-five per acre, and he receives 18c to 25c per pound. His favorites are Barcelona, DuChilly and Red Aveline. Concerning the Daviana, he says that while it is a beautiful nut it is a shy bearer. His eleven year old Davianas bear less than his six year DuChillys. White Aveline never failed him in twelve years.

A committee composed of McDonald, Groner, Terpening, Chapman and Percy was appointed to draw up specifications to which No. 1 grafted walnut trees should grade. Ordinary practice is to graft nursery trees at the ground line. Some growers, who have lost heavily from attacks of Mushroom Root Rot, demand a tree that is grafted a foot or so above the ground line; since this disease, which works under ground only, attacks the English walnut wood, but not that of California black. Few growers recognize this disease and there is accordingly a limited demand for high grafted trees. When a nurseryman undertakes to sell these trees to the average grower the latter thinks he is being imposed upon and refuses to buy. Other growers who are planting in low spots where there is danger of the young trees being frozen back prefer

the ordinary low grafted tree, for the latter may be frozen to the ground and yet the tree saved by nursing along a sucker that may come from above the graft; while with high grafted trees none but black walnut suckers will come up from a frozen tree. Hence there seems to be a place for both types of trees. This committee will probably recommend that the association sanction both types of tree. Ferd Groner was so certain that no nurseryman could grow a black seedling large enough in two years to successfully graft high that he offered a prize of \$100 to any person getting a 50% stand on two year old roots.

At present there is variety of walnut grown in the Northwest that is completely satisfactory. There are hundreds of acres of seedling trees growing here and it is the home of the Association that from these seedling trees there will come one or two trees that are superior to the named varieties now being propagated. Members are now on the lookout for such trees and a number are now under observation. In order to bring to light as many of these better seedlings as possible, prizes will be offered at the next annual meeting for exhibits of seedling nuts. The Oregon Nursery Co. has offered \$100 and H. S. French \$5.00 and others have offered to put up prizes more or less valuable.

Prof. Gardner in discussing the filbert question said that the filbert grows well upon a large variety of soils and that the most satisfactory soil had not yet been fully determined. The unanswerable questions in filbert culture now are pruning, pollination, variety, and the obtaining of nursery stock. There is probably not enough nursery stock in Oregon to plant two hundred acres. It is not an easy plant to propagate and the large nurseryman will not risk propagating a large stock due to the uncertainty of the demand. He says that Barcelona and DuChilly stand out before all other varieties at present; but upon future testing some other variety may surpass them.

Gardner believes that much work will have to be done on the subject of pruning. There is nothing worth while in print upon the subject. He says that bearing depends upon the fruit buds. Many trees often produce many weak buds. Perhaps pruning may affect the strength and number of these buds. He is troubled by a high per cent of seedlessness many years. Grosse Blanc often runs 75% seedless. His long varieties have given lower yields than the Barcelona type, but they have also shown much less seedlessness. He believes that seedlessness may possibly be due to pollination, soil, weather or weak buds. He recommends small plantings, but thinks that the big planter is taking a gambler's chance until more is learned concerning pollination, variety, pruning and cost of production. He thinks that Barcelona, DuChilly and other so-called varieties may perhaps instead be simply types, because their source was perhaps seedlings. Confusion in nomenclature probably accounts for the difference of opinion as to the merits of the different varieties.

In discussing the subject of fillers in the walnut orchard, A. A. Quarnberg said that filberts stand more shade than other fillers.

(Continued on page 191)

AMERICAN NURSERYMAN



THE NATIONAL JOURNAL OF COMMERCIAL HORTICULTURE

Featuring the Nursery Trade and Planting News of American and foreign activities as they effect American conditions. Fostering individual and associated effort for the advancement of the Nursery and Planting Industry.

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ROCHESTER, N. Y., DEC. 15, 1917

A Greeting

May your Christmas be all you could wish it and may the new year about to open carry somewhere in its course, for you and for us all, the happiness of a world at peace.

American Fruits Publishing Co.

MICHIGAN HORTICULTURISTS

Charles A. Bingham of Birmingham was re-elected president of the Michigan State Horticultural society at the business session which opened the second day of meetings and exhibits at Grand Rapids. Other officers chosen are: Secretary, George B. Lowe, Bangor; treasurer, J. Pomroy Munson. Two new members were chosen to the executive board, these being C. P. Halligan, East Lansing, and E. J. Ver Duen, Novi. The 1918 meeting will be held in Detroit.

A call was issued by the Chamber of Commerce of the United States for a meeting in Washington, D. C., December 12th, of representatives of every industry in the country. Was the nursery industry represented at this meeting? The object of the conference was to discuss vital problems—priorities in transportation, etc. We wish we were able to record the attendance, at this and other conferences, of the general manager of the national organization of nurserymen and the continuance of his lively duties, during his temporary absence, by an able assistant and one or more stenographers at his centrally located offices.

"It does not pay to grow peaches in the state of Michigan north of Ludington unless the orchard is located within two miles of the lake," is the opinion of H. B. Bemis, superintendent of the Dietl farm, twenty miles northeast of Frankfort. "The peach crop in Michigan this year was a total failure. Apples are our safest crop and unless the farm is located in the southern part of the state are advisable for growth."

CLOSING A YEAR'S RECORD

The record for 1917 is practically closed. Considering the extraordinary conditions affecting all activities, those in the nursery trade, in common with other business men, have reason to be thankful for results. We believe it is well for all nurserymen to reflect often upon the fact that notwithstanding the annoyances, perplexities and losses attending inadequate labor and transportation facilities, effects of weather, unsettled market conditions, etc., the fact remains that they are doing business in a big, busy, wealthy country and that upon all sides are innumerable forces working to their advantage. The winter season brings evidence of fully sustained interest in commercial horticulture, as shown by the addresses and discussions at annual assemblages of thousands of active horticulturists.

The pages of the *American Nurseryman* in the issues throughout the year just closing teem with news of the activities of nurserymen and planters. We do not take space to list these items at this time. Lists of contents have appeared from time to time.

The publishers congratulate all in the trade upon the situation as it exists at the close of the third year of world war and bespeak continued confidence in the promise held out by the new year for a large measure of earnest, patriotic, thoughtful activity in an industry in which millions of dollars are invested and for whose products there is constant demand in some degree.

OUR IDEA OF A PRESS AGENT

The editor of the *American Nurseryman* suggested to an officer of the American Association of Nurserymen at the Milwaukee meeting that much could be gained for the Association through publicity in connection with the annual conventions of the association. The suggestion bore fruit in the appointment of a press committee to operate at the Philadelphia convention. Unfortunately, the chairman of that committee was not able to give time required in advance of that meeting. The work necessarily devolved upon committee members near the meeting place. Professional advertising men offered their services, and, as the Association was obliged to depend upon such aid as might be volunteered the trend of matters became eventually quite apart from the original idea of the editor, the matter of a paid press agent included. That is the old method of obtaining publicity "without cost."

The idea we had in mind, but were unable to put into practice because of lack of time therefor, was to supply the editors of daily and weekly papers interesting, constructive information about the nursery trade, to the end that those editors would desire to comment thereon voluntarily. We suggested that someone who had time to do this might well be paid for the work.

Well, just what we had in mind may perhaps best be illustrated by a case in point. And here it is: The *Minneapolis News* of Dec. 4 published this editorial voluntarily, without price, based upon authoritative information supplied to its editor by one who was interested in the Minnesota Horticultural Society:

The popularity of war gardening activities lends added interest to the annual con-

vention of the Minnesota Horticultural Society now in session in Minneapolis. This is the greatest organization of its kind in America, the pioneer in the West, the foster parent of three similar State organizations, and the model and constant inspiration for such societies all over the United States. It has a membership of thirty-five hundred, more than twice that of its nearest rival.

The Minnesota organization is an actual fruit-producing organization. It has a fruit-breeding farm that is said already to have been worth more than a million dollars to the state. It has bred a June Strawberry that is superseding the best previously known berry in the climate; a raspberry superior to all others; a hybrid plum that surpasses all the old varieties; and apples that promise to outdo the Wealthy. Hundreds of thousands of seedling apple trees are being grown in an effort to get an apple better than the best Northwest apple yet known. The Society has seventeen volunteer testing stations, and fifteen hundred of its members are trying out the best fruits originated at the fruit-breeding farm.

This society is mothering such smaller societies as the Foresters' Association, the Florists' Society, the Garden Flower Society, the Bee Keepers' Society and the Vegetable Growers' Association. All these have a place on the annual program.

At the Secretary's office in the Kasota Block is the greatest horticultural working library in America, card-indexed for quick reference, packed with information, and free to anyone who cares to use it.

And the *Indianapolis News* on Nov. 26 said editorially and voluntarily:

The apple growers have far more than a smattering of scientific knowledge. If one should step into a meeting of the Indiana Horticultural Society without knowing before hand what it is, one might infer from the discussions that it is a convention of scientific men bearing degrees from universities. Such men do attend and deliver addresses setting forth the most recent discoveries, but the addresses of the fruit-growers are also scientific and with few exceptions are in language as exact as that employed by the professors and doctors of science. The apple growers of Indiana are educated men. That is the reason they are able to solve the many difficult problems of tillage, fertilization, pests and marketing. That is the reason Indiana has come to the front in apple culture.

MINNEAPOLIS A FRUIT CENTER

Approximately, \$60,000,000 has come into Minneapolis within the past 12 months in payment for fruit, sold by the city's 36 wholesale fruit houses, and their respective branch establishments. The territory covered from Minneapolis, so far as fruit distribution is concerned, lies to the west, and stretches practically to the coast, including, of course, the entire state of Minnesota.

Fruit, once characterized as a luxury, has grown to be a necessity and today is found as readily and frequently in the dinner pail of the working man as upon the table of the wealthier citizen. More than a quarter of a century of effort has been expended by local fruit wholesalers in developing the territory, and so supreme has Minneapolis become as a fruit distribution center for the West and Northwest, that even Chicago's fruit jobbers confine the activities to the Middle West, South and Southwest, making no effort to invade recognized Minneapolis' territory.

So important as a fruit center has Minneapolis grown, and so fixed its distribution, that much of the speculative risks carried by the fruit merchants of former years has been eliminated. In past days, distributors brought perishable fruits in car load lots, taking almost gambling chances on losing heavily if the entire shipment were not quickly disposed of.

So steady is the demand today, and so well do dealers know their customers and markets, that "left-over" stocks are rare.

THE BEST FRUIT FRIEND OF THE PEOPLE

By E. A. SMITH, Lake City, Minn.

Of all fruits, the apple is the best friend and fruit of the people. It is more useful and better known than any Northern fruit.

The apple is a healthful food. It satisfies the appetite without burdening digestion. For fleshy people, it is the food par excellence. It should be a part of the daily diet. It is not an expensive luxury, but on the contrary it is one of the most economical and healthful fruits that can be served.

If the people better understood its food merits and food value, instead of eating an apple once in a while, they would choose it for a regular diet.

While planted somewhat extensively in some places, there are many localities in the Northwest, and the country in general, where the apple might be successfully and profitably grown; but there are places where the wants of the people are never fully satisfied, owing, in part, to the indifference or lack of knowledge as to the uses and value of the fruit, or through neglect; to poor quality and sometimes to unnecessary expense.

Every farmer and country resident, owning land, ought, and could, in nearly every section of the Northwest, grow some varieties of fruit, and some varieties of apples.

From nearly every standpoint, it is economy to grow fruit of some kind, where possible, yet comparatively few of those who might grow all the fruit they need for family use are doing so.

Minnesota is not growing 50% of the apples it consumes. It never has and perhaps never will. Of early apples, there has, in some years, in some localities, been an over-production; but of winter varieties there has always been a scarcity of late keepers.

THE APPLE SHOULD BE ADVERTISED

Knowing about the apple as well as we do, why should it be advertised? The apple is so rich in its possibilities for advertising, that it is a wonder it has been so long neglected. Advertise to the prospective settler that the finest apples in the world are grown in Minnesota; that Northern fruits are a success. Give figures showing cost of production, directions for cultivating, how to pack and market, together with practical suggestion for the care of the orchard, and they will prove one of the strongest inducements and arguments that can be placed before the public.

The State Board of Immigration should welcome such an addition to its literature, showing, as it will still further, the possibilities of our soil and our climate.

Even the producer may learn much from Bulletins. In this connection, I take the liberty of mentioning an excellent bulletin by Prof. R. S. McIntosh, of the State Agricultural College, regarding picking, grading and packing of apples. It ought to be carefully read by all orchardists.

Aside from the publications of the Horticultural Society, and those of the State Agricultural College, I have never seen any bulletin published by the State, for advertising purposes, which made special mention of fruit growing as one of the great resources of the state. Other states have placed great emphasis upon this feature, with remarkable success. Why not we?

Would we know of Hood River, Oregon, Yakima, Washington, and other parts of our country, if it were not for their fruits, well advertised?

By judicious advertising, the Sunkist Orange sprung into fame. Raisin day has made this fruit more popular. Grape fruit

would not be generally known if not generally advertised. A few years ago, a syndicate planted a large olive grove in California. There was no sale for the product. The company neared bankruptcy. Then some bright man suggested they advertise, and California Olive Oil is known and used everywhere, while its capital stock has increased in value several hundred per cent. The great pineapple industry of Hawaii had a similar experience. Minnesota butter is the best in the world. It has been exhibited and advertised at every big Dairy Convention in the country, taking first prize. Everyone knows of Minnesota as the great Bread and Butter State. Why not also know of it as a Great Fruit State?

My attention has been called to Extension Bulletin No. 10 issued by the Massachusetts Agricultural College, advertising the apple. It is a splendid bulletin. Send for it. The leading varieties of apples for that section of the country are given; also, a brief mention of their qualities and the season when they are at their best.

Minnesota would do well to issue bulletins of similar character for the benefit and instruction of her people.

The Minnesota Horticultural Society is doing a splendid and practical work in experimenting with and introducing new fruits. It is continually giving information freely to all who will listen and learn.

But even this is not enough, for it does not reach a class of people that state-wide publications would, bearing upon the culture of fruit in this section.

Why not at the annual meeting of the Horticultural Society have sample dishes prepared and someone present to serve them? Have printed recipes attached? It will take both time and effort and will cost money, but the state can well afford the expense, and it would be worth while.

SHOULD BE PUBLICITY CAMPAIGN

How few people know that there are more than a hundred ways of serving the apple in the most appetizing manner,—in pies, dumplings, puddings, apple butter, marmalade, preserves, etc. The people can be educated to clamor for apples to such an extent that there need be no waste of the fruit, as there now is. In season, at least, every bill of fare should contain some of the desirable dishes in which the apple can be attractively served.

November 1st is a national apple day, but it is so little known and poorly advertised that I am unable to refer to its origin or its effectiveness.

For exhibits, boards of trade and civic organizations could make effective displays, always, of course, giving each variety its true name. They should be interested and glad to make such displays and distribute literature. The state could well afford to encourage and finance such effective means of advertising her resources.

Manufacturers of cereals and other products appreciate the value and importance of sample and demonstration days, and they make them win. These are suggestions which are practical, and which are not built merely upon enthusiasm, but if carried out, will be of great value to those having the fruit interests of our state at heart.

After the war, bearing orchards will be a valuable property. Start them now.

Georgia Horticultural Society—Semi-annual meeting, Athens, Ga., January 14-16.

Trade Bulletins

J. N. Upham, Cheboygan, Mich., is clearing land for orchard planting in the spring.

The LaVerne, Cal., Orange Growers' association shipped out a round million dollars worth of oranges and lemons the past season.

The Roswell-Pecos Valley, Texas, Orchard Co., Milwaukee, Wis., has increased its capital stock from \$20,000 to \$40,000.

It is reported that George McMann, Peabody, Kan., has produced a seedless cherry and says it can and will be grown commercially.

Austin & McAslan, nurserymen, Glasgow, Scotland, last month celebrated the bi-centenary of the establishment of the business in 1717.

E. Turbat, Orleans, France, directs attention to the fact that recent French regulations regarding exports do not in any way affect the continued export of nursery stock to America.

John Watson & Co., Newark, N. Y., say there will be no trouble about arrivals of nursery stock from France; that the tonnage required by American soldiers in France insures ample space returning.

The Post Office Department announces that parcel post service between the United States and Belgium, Netherlands, Norway, Sweden, Denmark and Greece has been suspended.

Theodore J. Smith, of W. & T. Smith Co., Geneva, N. Y., has resigned from the executive committee of the A. A. N. J. Edward Moon, Morrisville, Pa., has been selected to fill the vacancy.

Charles Anderson, Farragut, Ia., raised 2000 bushels of apples in his ten-acre orchard this year: Grimes Golden, Jonathan, Spitzenberg, Gano, Ben Davis, Winesap and Black Willow Twig varieties.

There are now 38,260 acres of citrus fruit trees two years old or older in Tulare county, California, according to report of Horticultural Commissioner C. F. Collins. There is a considerable area of young trees planted this year and last year.

Fruit growers in the Western New York belt had the aid during the growing and harvesting seasons of a new special forecast service which contributed to the bumper crops of peaches and grapes harvested throughout Western New York.

A world's record has been established by California in the volume of fruit products shipped out of the state in the ninety days ended October 25, says the Pacific Fruit express manager whose service handled in that time 27,000 carloads.

In the arrest of father and son, officials of the Hawks Nursery Company, Wauwatosa, Wis., have put a stop, temporarily at least, to the looting of their farm property that has been going on for the last three years and has entailed a loss of several hundred dollars.

The U. S. Dept. of Agriculture special report on the commercial apple crop of 1917 shows a decrease in Eastern states with New York short 3,995,000 barrels as compared with last year; a medium crop in the Shenandoah Valley, Va.; an increase of 36 per cent in the Central states and a better crop than last year in the mountain states and the Northwest.

O.A. Jones of Mt. Sterling, Ill., has again sold his apples on the trees to R. A. Watson of Chicago. The orchard covers 15 acres, but his apples will make only half a crop this year. Mr. Jones received a check for \$1,200 and retains all the "falls" and all the picked apples he requires for his own use.

Standardizing Retail Prices

Mark Lanier, Harlan Farms Nursery, Lockhart, Ala., Before Southern Nurserymen's Association

In touching on this question I realize that it is one with many prickly points, and one that concerns almost every company represented in the association membership. I bring to you, gentlemen, no formula for immediate relief. I believe that it is a question that must necessarily be worked by degrees and by education. Great movements requiring the thorough drilling of the school of experience are not accomplished overnight. I merely hope to bring the subject up at this time for further emphasis. This subject has already received many years of consideration and debate; it is a subject that has from time to time been resurrected at associational meetings and argued over from all sides. Yet it is one that cannot be safely dropped, and one that should receive our individual and collective efforts toward solving; in fact, if we would command the high eminence that our line of business deserves, its solution is imperative.

I believe that the time is here when a plan of standardization of retail prices can be put in with the minimum of confusion. We are entering a period of what promises to be real prosperity for the nursery business. Crops generally are excellent and prices of farm products are high. Inasmuch as the nursery business is only one branch of agriculture, and the bulk of our business is done with people of or on the farm, the result is apparent. I believe the time is ripe for the adoption of a much needed stiffening along this line.

I am not likely to cause the least surprise when I state that there is a disconcerting lack of uniformity in retail prices. I venture to say that there is a variation of 500% in the quoted retail prices of certain standard trees in our territory today. This does not mean that the seller obtaining the highest price makes a profit of 500% or anything like it. It means that the seller at the low price, if he be a retailer, is attempting the financial suicide of unloading a surplus on a wholesale basis when he is staggering under a retail cost system; or if he be a wholesaler, is knifing the entire business structure by unloading stock in a field, the absorptive capacity of which is extremely limited except at a cost in sales promotion that the wholesaler does not even begin to assume.

The weak joint in our armor is that we fail to take the proper perspective of the cost of the delivered tree in its relation to volume. In other words, if the retail purchasers would come to our nurseries and buy all the trees we could grow without any sales effort on our part, we could afford to sell at a very much lower price than we do; but retail purchasers are not built that way. We have got to drum, fight, plead, drive, exhaust printers' ink and consume appalling quantities of postage in order to convince the consumer that he needs our product in volume.

Now, mind that word volume—underscore it, because we must have volume of sales if we exist. Right there is where we lose our vision, in the relation of prices to volume. The majority of our retail sales are small—orders averaging only a few dollars, and to get the necessary volume for our business it is absolutely necessary that we shoulder an expense department that amounts to more than the cost of growing and packing. Whether we employ sales-

men or catalogs, or both, the expense is unavoidable. In the case of a salesman, if he is any good, he commands a handsome salary or profit-sharing arrangement; he has to have a car which uses gasoline, pay other heavy expenses and make two trips, once to sell and once to deliver; in fact, sometimes he goes more than once to sell. There is an overhead expense, salesmanager, office and general expenses; the expenses have to be averaged over good years and bad; years when there are wholesale cancellations, and all kinds of complaints and risks that arise in business of this kind. These expenses, I say, are all absolutely necessary to volume, and the legitimate retail prices must be based on the same, whether we sell one tree or 1,000; whether we have a surplus left at the end of the season or not, the per-tree cost is there.

In that case, the man, who, having a surplus that he wants to unload, or the man who for lack of sales organization (and this is far too often the case) decides to make a bid on cheap prices, so-called "wholesale" prices; or the man who attempts to do a wholesale business with retail buyers; either can create a disturbance in the normal flow of business with a very small stock, that gives the whole industry a not very pleasing appearance. In the long run the consumer does not benefit, because if every tree that is to be moved the coming fall were sold on that basis, most of the retailers would be bankrupt by next spring and the wholesalers would soon follow. The essential machinery of distribution would break down, and the fruit and nut-growing industry would soon have to propagate their own stuff or go without. It is the few instances of this kind of practice, having an influence altogether beyond their actual extent, that keeps the trade irritated with promising any solid relief for the ultimate consumer.

I would not attempt to say at just what level prices should hold. There are instances where higher prices are asked and obtained than are justified. I do not uphold the quoting of unreasonable prices, or of maintaining an elaborate sales system carried on for the purpose of splitting profits too many ways. Neither do I agree with the plans in some quarters of exploiting new plants of limited supply and doubtful, or at least, untested, merits. However, legitimate competition, the invariable law of supply and demand, will in the final analysis control.

But I say that if we succeed in the retail tree business, we must maintain a price level somewhere between the actual cost of growing, packing and distributing, and that which constitutes profit. The minute we look at a small surplus that may be disposed of at a price based on expediency rather than cost; that is, using wholesale methods under retail conditions, we have lost the proper perspective.

We must get it clear in our individual minds that the wholesale and the retail fields are entirely separate and distinct. If we would engage in both lines, we must base our prices on the proper respective cost levels—keep the two lines entirely apart, and above all things, sell only to the trade at wholesale prices. Selling to the trade is largely reciprocal, as we all have to do more or less trading among ourselves.

I only state the obvious, gentlemen, when

I say that the retailer is the main factor in making the volume of trade possible. He is creative. His salesman or his catalog, or both, are largely responsible for originating the desire on the part of the public for our product, and he is chiefly the means of the necessary expansion that the industry enjoys.

SOME TRADE ACCOMPLISHMENTS

This publication has had the satisfaction of seeing brought to pass the re-organization of the American Association of Nurserymen which it argued long for, in and out of season and in the face of the declaration by others that there was no need for it and it has seen those others at the eleventh hour coming in and endorsing the proposition after it had become a fact.

* * *

This publication has called loudly for expulsion from membership by the American Association of those who are guilty of dealings not in accord with established business ethics—and behold, that is exactly the wording of Article IX of the constitution which was adopted at the annual convention of the American Association! Moreover, it is practically the wording of a vigorous paragraph which has just been made a part of the constitution of the Southern Association of Nurserymen and has drawn from Prof. W. H. Hutt, State Horticulturist of Georgia and President of the American Pomological Society, hearty endorsement as published in a recent issue of the "American Nurseryman."

* * *

This publication has called for a report by the "Vigilance Committee" of the American Association which should pass upon the allegations of shady transactions, when it knew there was no such committee—and it had the satisfaction of recording the appointment of such a committee by the Association's executive!

* * *

This publication has contrasted the drifting attitude of the national organization due to precedence of the entertainment idea at annual conventions, when there was real work to be done at these annual gatherings which would mean something to business men seeking ways of bettering trade conditions—and it has had the satisfaction of seeing a turn-about so complete as to do away entirely with the entertainment feature and to substitute a full three days' program of practical trade discussion!

* * *

This publication has argued for the training of business men within the trade, so that the problems which confront the industry shall be handled intelligently and for the greatest good of all—and it has had the satisfaction of recording, single-handed, the resolution adopted at the Philadelphia convention, providing for steps toward the establishment of a central bureau for handling the affairs of the American Association, in charge of a Secretary-Manager, and the appointment of a Commission on Standardization!

* * *

These are progressive moves.

And now this publication calls upon the trade to consider seriously and favorably the proposition to raise a fund for publicity for the Nursery Trade.

Obituary

Frederick F. Bernard

Frederick Francis Bernard died at his home in Painesville, Ohio, October 29th, in his eighty-fourth year. Mr. Bernard was one of the pioneer nurserymen of his state, having established a nursery in 1863 on land that is now a densely populated section of the city of Cleveland, O. In 1868 he established the well-known Fairport Nursery, in Painesville, O., and carried on a nursery business there, till failing health compelled his retirement, about four years since.

Mr. Bernard was a native of the town of Bex, in the Canton de Vaud, of the Republic of Switzerland, and came to this country at the age of 21. He was granted citizenship in this country, at the time of establishing residence in Painesville, O. He was for many years one of the best known and widely respected citizens of Lake county. His wide experience, and sterling worth won for him a high standing in his business life. He is survived by a son, A. F. Bernard, of the Rosemont Nurseries, of Painesville, and a daughter, Miss E. Louise Bernard, of Painesville, O. Mr. Bernard was one of the early members of the A. A. N. and attended the yearly conventions very regularly, till a few years before his death, and is mourned by a large circle of friends in the trade.

Big Crop in Idaho Orchards—Orchardists in the New Plymouth district of Idaho, will receive fully \$200,000 for their fruit this season. While nature has given the apple and prune trees a pretty good thinning of surplus fruit, most of the apple growers find it necessary to do additional thinning. E. E. Trayer, secretary of the New Plymouth district of the North Pacific Fruit distributors, stated the present indications are that New Plymouth this year will ship out 300 or more cars of fruit, of which amount about half will be handled by his association.

Special — For Early 1918 Spring Shipment

No. 1 Berry Transplants—\$30.00 per M.
Teas Wpg. Mulberry—4 1/2 to 7 ft.—2 yr. heads.
Buddleya—Butterfly Bush, 2 to 4 ft.—Pruned 12 in. to 18 in.
Spiraea—Anthony Waterer, Van Houtte, 1 1/2 to 4 ft.
Hydrangea—Tree (4 ft.) Arborescens (Hills of Snow) Bush 2-4 ft.
Weigelia—Eva Rathka Rosea, Var Candida, 2 to 4 ft.
Potato—(Wick Hathaway new) Best Yields, Eater, Looker, Keeper.

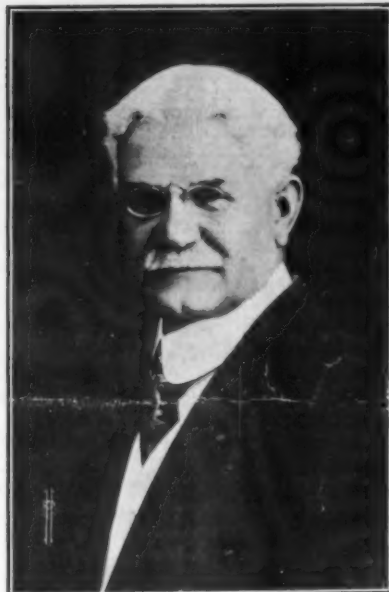
Small Fruit Plants

Current, Gooseberry, Grape Vines, Blackberry, Raspberry, Strawberry, of leading best kinds, including **FALL BEARERS**.

Your Want List will receive prompt attention—You never Delivered finer stock, nor received quicker service than you get from.

Yours Truly
Wick Hathaway's Berry Plant Nursery
 Madison, Ohio

Say you saw it in AMERICAN NURSERYMAN.



C. W. BEERS, Santa Barbara, Cal.
 Horticultural Commissioner

C. W. Beers in a New Field

C. W. Beers, for ten years horticultural commissioner of Santa Barbara county, California, resigned December 1st to become third vice-president and office manager of the Rotary Products Company, of Los Angeles, holding air compressor patents recognized internationally. Great expansion of operations is planned at Los Angeles; also a subsidiary plant at New York City. Mr. Beers is enthusiastic over the prospects. As horticultural commissioner he gave especial attention to diseased trees, especially the walnut.

His advice and co-operation has been sought and acted upon in securing foreign grasses for the high land and the dry and sandy sections of the county. Gummosis in lemon orchards has been eradicated largely through his activity. One of the most useful things accomplished by Mr. Beers was the introduction of a parasite for scale control. The carob tree has been one of the innovations of his administration and the development of this he intends to continue.

Readers of the *American Nut Journal* and the *American Nurseryman* have frequently had the benefit of Mr. Beers' investigations.

The Great Nursery Co. has been incorporated with capital stock of \$15,000 to do business in Piqua, O., by Ralph H. Peterson and others.

Hopes of eliminating the middleman and broker and establishing a co-operative central selling agency for disposal of Michigan fruit were expressed by Michigan growers in convention who say this is the only way their produce can be offered to the public at a reasonable rate. A vote to incorporate under the laws of the state was the first step

toward this action. Clark Allis, Medina, N. Y., prominent fruit grower is organizing such movement in New York state.

Western Walnut Association

(Continued from page 187)

Where the walnuts are planted 50 feet apart he would use one filler; and where sixty feet, two. He was not certain which he would eventually remove, the walnut or the filberts.

After a discussion of the marketing question by Dearborn and Percy, the association went on record as favoring the organization of a co-operative marketing exchange to handle the grading and marketing of the Oregon crop. Dearborn and Percy were appointed a committee to prepare a scheme of organization to be submitted at the January meeting of the association. While the crop of the Northwest at present is not heavy enough to make marketing difficult, it was thought best to organize in order than the grades might be standardized and that prices might be maintained from the start, instead of waiting until the industry is almost down and out before taking steps to reorganize, as other western growers have done.

The old officers were re-elected and McMinnville was chosen for the next annual meeting place. The first quarterly meeting will be held at the Agricultural College at Corvallis during the first week in January.

Indiana Show the Best Ever—The pick of Indiana's 5,775,000 bushel apple crop went on exhibition in Washington, Ind., Nov. 21st, when the seventh annual apple show of the Indiana Horticultural Society was opened. Hundreds of barrels of apples, shipped from nearly every apple growing county in the state, were exhibited. Three days were occupied in packing the apples for show purposes, and two packing experts were there a week instructing local growers how to pack their fruit.

Aside from the general excellence of the many exhibits, the show this year was noteworthy for the high-class program of educational lectures provided by the officers of the Indiana Horticultural Society. It is conceded that this year's program was the best ever presented at an Indiana Apple show.

NOTICE TO THE TRADE

Herewith we may inform our esteemed patrons that from this date Mr. L. Van Heerde has left our firm.

We kindly request to send all communications direct to our head office only at Gouda, Holland.

A. KOLOOS & CO.

EXPORT NURSERIES,

GOUDA, HOLLAND

The Chase Labels

For Nurserymen and Florists are Excelled by None

PLAIN, PAINTED, WIRED with TINNED or COPPER WIRE and

PRINTED IN ANY MANNER

That may be called for

Prices as low as **FIRST-CLASS WORK** and unequalled **PROMPTNESS in DELIVERY** will justify.

Please favor us with a trial order if you are not one of our present patrons.

THE BENJAMIN CHASE CO.,
 DERRY, NEW HAMPSHIRE

P. O. Address and Western Union Tel.—Derry Village



Events in Nursery and Orchard Rows

California Nursery Company's Property Sold—The nurseries established more than half a century ago by the California Nursery Company, at Niles, Cal., have been sold. They comprise more than 600 acres of land. The Oakland, Cal., Tribune of October 30th says:

"The consideration in the transaction was not made known. The nurseries have been valued at approximately \$300,000. The land is in a high state of cultivation and the stock includes fine grades of fruit and nut trees, ornamentals, shrubs, palms, roses, berries and flowers.

"The Landers estate was the largest stockholder in the concern, W. H. Landers, being president. There were numerous local stockholders on this side of the bay.

"The new owners, who are said to own large nursery interests in the central part of the state, will operate the Niles plant substantially under the policy that has been successful there during the past fifty years and will continue W. V. Eberly, the manager at the present time, in charge. The name of the purchaser was not announced. Landers, Eberly, F. W. Hosmer and A. C. Hammond are among the directors.

Seedling Plum Wins \$100 Prize—The Charles M. Loring seedling plum prize of \$100 has been awarded by a committee of the Minnesota Horticultural Society to John P. Vikla for a plum tree near Lonsdale, Rice county, Minn. J. M. Underwood of the Jewell Nursery Co., Lake City, Minn., was a member of the committee of award. The fruit is of extraordinary size, well colored, firm-fleshed and of excellent flavor, although it is a free-stone. The tree in nursery and top-working tests has proved hardy in Minnesota.

More than 1200 persons from all parts of the state attended the fiftieth convention of the California Fruit Growers' Association, held in Sacramento November 21 to 23, inclusive. Many topics of interest, including the labor problem in California, were discussed during the sessions. The delegates and visitors spent one full afternoon at the University Farm at Davis.

Apple rust was noticeably injurious this year in the southern part of Ohio, particularly in Ross, Lawrence and Washington counties, from reports of the botanist of the Ohio Experiment station. The utilization of the red cedar trees for posts has been suggested as a control measure against the apple disease.

The Greening Nursery Co., Monroe, Mich., had an exhibit of nursery stock at the farmers' exposition in Toledo, O., early this month. It was in charge of George J. Schaefer.

Record Prices for Malaga Grapes—Two from Cutler by the Stewart Fruit company, cars of Malaga grapes, shipped last month brought the highest gross prices ever known to have been received for Malaga grapes from the San Joaquin Valley, in New York and Chicago.

Car No. 20, sold at the auction in Chicago brought the highest price, \$3,328, or an average of \$3.33 per crate. Car No. 24 sold in New York for \$3,228. The prices per crate ranged from \$2.70 to \$5.40. The fruit was reported in fine condition.

Free Distribution—Australia—This subject was again brought forward for further discussion as a result of the Secretary's enquiries regarding the actual statements made in the Legislative Assembly by Mr. Prendergast when advocating that rose and other cuttings should be distributed gratis to the general public. The official Parliamentary reports were produced and read by the Secretary. The consensus of opinion of those present was that if the Government carried out the suggestion made by Mr. Prendergast there would be a repetition of the trouble which arose at the Botanical Gardens some years ago, when all work in the gardens had to be suspended to permit of the plants being correctly labelled before being handed to the public. Strong meas-

ures should be taken to nip in the bud any practice which would prove of detriment to the nursery interests, and the Secretary was urged to keep in touch with the Department concerned.—Victoria Association Nurserymen.

Would Let Government Do Experimenting—At the fiftieth annual meeting of California fruit growers, A. L. Wisker, nurseryman, insisted that the growers were wasting much of time and money experimenting with deciduous root stocks when a state experimental station would take up the different questions of selecting, budding, seeding, and grafting the various fruit and nut trees.

He presented the situation of the citrus fruit growers, who have had an experimental station in Riverside for some time, and through this station had cut down the guesswork of growing citrus fruit to the minimum.

Guessing was expensive and took lots of time, he said, and the growers of deciduous trees were paying all the freight all the time. He gave us an example the progress made in agriculture through the various experimental stations where experts were maintained for the purpose of keeping the farmers from taking chances. He said that 60 per cent of the roots were Japanese at this time where three years ago French seedlings were used with the result that thousands of acres of trees were killed by blight. This, he said, was particularly true of pear trees.

Suit Against Nursery Company—A despatch from Napa, Cal., says: The Supreme Court in the case of A. E. Burge vs. Albany Nurseries Company, has affirmed the decision that was rendered in April, 1915, in the Superior Court before Judge H. C. Gesford awarding the sum of \$1,500 to Burge. Burge sued the defendant company for damages, claiming that he had ordered from them a quantity of prune trees on Myrobalan roots, and that they had sent him instead trees on peach roots. He did not discover this until after the trees had been planted for two years. The jury brought in a verdict awarding damages to Burge.

Selling Prices—A correspondent signing "Canadian" says in the American Florist: "How many have the courage to do as other producers of merchandise have done—advance the selling price with each advance in the cost of production? A comparison of the with those in the issues of November of 1913 and 1914 will show that at least 50 per cent of the stock advertised is at or so near the same prices that there is no appreciable difference, and for the balance only from 10 to 25 per cent increase. Will this small increase cover the cost of production and leave a margin of profit? Perhaps the question, what is a safe margin of profit? is one that too little consideration has been given by the average producer. It is the one essential element that every man in business should give close attention and careful study. Your own salary allowance should be increased 100 per cent, for it is costing you more than that difference in the cost of living and the extra energy you have to put into your business. Then, the price of fuel is more than 100 per cent higher than it was. Labor is costing more and is less efficient in that so many new hands have to be trained. It is, then, but natural to suppose that the cost of production has increased and that business cannot be done profitably by selling at prices that prevailed three years ago."

American Apples to Australia—It is announced that, following a conference with the representatives of fruit importers and Tasmanian fruit growers, the Prime minister of Australia has agreed to allow the importation of a limited quantity of American apples during November and December. One of the conditions precedent is that the imported apples shall not be placed upon the market earlier than November 1, nor be allowed to remain on the market later than December 31.

Fifty Thousand Quarts of Everbearers—In a communication from Chas. F. Gardner, Osage, Iowa, under date of October 2, he says, "Vines are loaded now with fine berries, no damage from frost yet. We are troubled to get pickers. We have already marketed since August 15 fifty thousand quarts."

"We have found a raspberry which does not need a winter covering and which has the size and flavor necessary to be of commercial value," said J. M. Latham, Lake City, chairman of the executive board of the Minnesota Horticultural Society.

N. W. Ayer & Son, advertising agents, recently conducted a publicity campaign for the American Sugar Refining Company, including the collection and codification of fruit-canning data.

Nurserymen in Conference at Des Moines

Use of the trademark as a means of standardizing nursery stock was urged upon Iowa nurserymen in a second annual conference held in Des Moines, Iowa, Dec. 5th, says the Des Moines Register. The nurserymen were the guests of Successful Farming at the Chamberlain hotel.

E. H. Favor of St. Joseph in a talk before members of the Successful Farming staff and nurserymen asked that some form of label be adopted whereby nursery stock would become as well known to the farmer or fruit raiser as brands of fruit are today well known to the consumer.

The best market that the Iowa farmer has is his own home, said Professor Herrick of the Iowa State college at Ames. He said that too frequently the Iowa farmer made his fruit raising too extensive a side line for the best interests of his farm and this resulted in the production of a poor quality of fruit.

It was declared by nursery growers that the raising of fruit was a necessary industry in time of war. It was pointed out by a grower in the afternoon conference that the health and morale of Germany is suffering as much from the lack of fruit products in their ration as from any other cause, and in an effort to produce food for our armies that the orchards should not be neglected.

It was the statement of E. H. Smith of Tippecanoe, Ohio, that without planting any additional fruit trees at least an additional 1,000,000 bushels of apples could be produced during the next season. He said that this would round out the stomachs which will not be filled if dependence is placed wholly upon the production of wheat and corn.

First—Thorough pruning of roots and the required drainage by trenching about trees or dynamiting.

Second—Careful, thorough and proper pruning of the trunk and body for the conservation of the vitality of the trees.

Third—Thorough and seasonable spraying for the protection of the tree and its fruit.

Fourth—Thorough mulching for absolute control of the season of bloom.

Fifth—Proper fertilization of the soil to sustain the tree in its growth and production of fruit.

Sixth—Necessary and seasonable cultivation.

The speaker said that it was not too late to begin preparation for a larger production of apples in Iowa next year.

The nurserymen were urged to begin a national campaign of advertising to educate the public as to the need of standardized fruit trees.

Say you saw it in AMERICAN NURSERYMAN.

LINING OUT STOCK

AMERICAN GROWN

	1000	5000
Barberry Thunbergii, 8 to 12 in.	\$10.00	\$ 8.00
Barberry Thunbergii, 4 to 8 in.	5.00	4.00
Forsythia in assortment, 12 to 18 in.	12.50	10.00
Lonicera Grandiflora, 10 to 12 in.	10.00	8.00
Privet Ibota, 10 to 12 in.	8.00	6.00
Philadelphus in assortment	12.50	10.00
Spirea Van Houttei, 12 to 18 in., strong	15.00	

Send for complete list of lining out stock.

IBOTA PRIVET

	1000	5000
12 to 18 in., heavy	18.00	15.00
18 to 24 in., heavy	25.00	20.00
2 to 3 feet, heavy	35.00	30.00
3 to 4 feet, heavy	45.00	40.00

Shrubs in car load lots.

ONARGA NURSERY COMPANY, Cultra Bros. Mgrs.
ONARGA, ILLINOIS

Nurserymen Should Know

That one of the fastest growing industries
in the country is

NUT CULTURE

Demand for information as to Nursery-grown Nut Trees is
insistent on all sides. Full information by specialists appears
regularly in

AMERICAN NUT JOURNAL

Leading National Publication of the kind

Subscription \$1.25 Per Year

Advertising Rate \$2.10 per inch

AMERICAN FRUITS PUBLISHING CO., Inc.

39 State St., ROCHESTER, N. Y.

J. H. Skinner & Co.,

TOPEKA, KANSAS

APPLE SEEDLINGS

MAHALEB SEEDLINGS

FOREST TREE SEEDLINGS

—Catalpa, Elm, Maple,
Mulberry, Black Locust &
Honey Locust.

FRUIT TREES — Apple,
Cherry, and Kieffer Pear.

RHUBARB—Divided Roots,
True Myatt's Linneaus.

GRAPES

SHADE TREES

FLOWERING SHRUBS

PAEONIAS

An Opportunity for a Western Grower

There are growers of good nursery stock in the west, with ample facilities and good equipment, who can add a retail department to good advantage.

This advertiser has a modern, up-to-date, retail business, whose sales average from \$30,000 to \$35,000 per year. This business can be increased materially through the co-operation of some grower and some additional capital.

A better location and connection with some good grower is sought, either on a partnership basis, or will make contract for stock for a term of years.

Can satisfy the most exacting as to my business and executive ability in the retail nursery business, both agency and catalog lines.

Any grower looking for a larger market for his stock may find it to his advantage to investigate. All replies will be treated strictly confidential.

Address, "RETAILER," care American Nurseryman, Rochester, N. Y.

Fruit and Shade Trees, Evergreens, small fruit plants, ornamental shrubs: 10,000 Peony roots; 50,000 Gladiolus bulbs.

Simplex Tree Baler, does the work. Price \$16.00. Bragg tree digger, used but 3 days.

L. F. DINTELMANN

BELLEVILLE,

ILL.

August Rolker & Sons
HORTICULTURAL PRODUCTS,
IMPORTERS, FORWARDERS

Consult us before placing orders.

P. O. Box 752, NEW YORK, 51 Barclay St

"The American Nurseryman" is issued twice a month—1st and 15th

Portland Wholesale Nursery Co.

122 1-2 Grand Ave.

PORTLAND,

OREGON

General Nursery Stock & Nursery Supplies

Apple, one year, large assortment.
Pear, one and two year, mostly Bartlett.
Cherry, one and two year, general assortment.
Prune, one year, mostly Italian and French.
Gooseberry, one and two year, Oregon Champion.
Shade Trees in assortment.
Roses, field grown, large assortment.
Our Trade List is now ready; a postal card will bring it

1917 EDITION

AMERICAN NURSERY TRADE
DIRECTORY

Completely Revised

Many Changes

\$1.00 per copy, postpaid
Advertising: \$2.00 per inch

AMERICAN FRUITS PUBG COMPANY

Cherry Trees

We offer for sale our usual supply of first-class one year, two and three year

CHERRIES

Can furnish some extra heavy trees for landscape work. Both Mahaleb and Mazzard roots.

Send us a list of your wants

H. M. SIMPSON & SONS

Vincennes,

Indiana

Large stock CLEMATIS PANICULATA,
2-year and 3-year

Also SHRUBS and HERBACEOUS PLANTS
for Fall 1917

T. R. NORMAN
PAINESVILLE, O.

Natural Peach Pits

We have an exceptionally fine lot of new crop seed, and suggest the advisability of your having shipment made now while the seed can be had and give plenty of time to get through. Sample and price on request.

J. VanLindley Nursery Co.
Pomona, N. C.

ALL KINDS OF AMERICAN SEEDS

Of Trees and Shrubs for sale by

F. M. CRAYTON & SONS

BOX 393

BILTMORE, N. C.

Bailey's New Standard

Cyclopedia of Horticulture

On Easy Terms. Prospectus Free
American Fruits Pub. Co. Rochester, N. Y.

WHOLESALE ONLY

OWN — ROOT — FIELD — GROWN — ROSES

Shipments January 1, 1918 to March 15, 1918

By Express the "safe method"—And you better have your order booked now while the assortment is good. Write for price list. Try Climbing Sunburst.

HOWARD ROSE CO. HEMET, CALIFORNIA



CURRENT CULTURAL TOPICS

May Try Foreign Root Stocks

In view of the experiment started a few years ago by the American Association of Nurserymen, through a committee headed by E. A. Smith, Lake City, Minn., for determining the practical effect of crown gall on nursery stock, it is of interest to note the conclusions of a committee on the same subject created by the California fruit growers in 1916, appointed by State Horticultural Commissioner George H. Hecke and consisting of C. W. Beers of Santa Barbara, B. B. Meek of Oroville, James Mills of Hamilton City, A. L. Wisker of Grass City. Leonard Coates of Morganhill and Professor W. L. Howard of the University of California also worked with the committee.

"Crown gall was believed to be causing more losses to nurserymen and fruit growers than any other disease," the report stated, "and it was proposed that an effort be made to experiment with the hope of securing immune or resistant stocks for this trouble. In some districts in France, it was stated, the myrobalan was grown without infection from crown gall and yet myrobalan seedlings imported from France to this country are subject to infection.

"Careful investigation along this line might disclose the reason for immunity in France and infection here. Important results have already been achieved in improving root stocks. Probably the most widely known is the complete elimination of the phylloxera by this means. Another is the *Amgdalus davidiana*, a Chinese seedling peach stock, which was imported by the U. S. Department of Agriculture. The stock thrives on alkali land."

Southwestern Iowa Horticulturists.—Among the participants at the annual meeting Dec. 4-6, were E. A. Hess, Council Bluffs, "Commercial Growing of Grapes;" I. N. Brown, Atlantic, "Everbearing Strawberries;" F. P. Spencer, Randolph, "The Cost of Producing a Barrel of Apples;" G. H. Van Houten, Lenox, "What Shall We Plant;" W. M. Bomberger, Harlan, "Peony Culture." M. J. Wragg, Des Moines, is a director of the association.

Maryland Nut Nurseries

Bowie, Maryland

The demand for English walnut, black walnut and hardy pecan trees has been very strong this season. We have completely sold out all nut trees this year except some fine large pecan trees which we have in our Indiana Nursery. These trees are on four year old stocks and have two year old tops. They run from 5 to 8 feet in size and are very beautiful, attractive trees, of the standard northern varieties. We will receive orders for these trees for spring delivery only.

We take this occasion to thank our many customers for their orders and hope they will take care of the fine trees we have sent them and that they will do well.

PUTNAM'S GARDEN HANDBOOK

A convenient, comprehensive and practical book. Valuable suggestions on Flowers, Trees, Shrubbery, Vines, Lawns and Birds. Cloth, 8vo., \$1.60, postage, 15c. AMERICAN FRUITS PUBG. CO., 39 State St., Rochester, N. Y.

Roots of Fruit Trees.—A writer to Horticultural Advertiser, London, England, says: It was contended by the celebrated Woburn Experiments that trees with roots having plenty of fibres were not necessary for their future well-being, as it was alleged that the fibres were killed by the action of transplanting. There is considerable truth in the assertion, for it is not the fibres but the tap roots which cause a strong growth.

It is a popular delusion in our trade that quite young trees are better rooted than older ones, but I remember a flat or quarter of Standard Pears (on free stock) which had stood too long without being transplanted and were then allowed to go on for a couple of years longer, coming up with fine roots, indeed, far better than some three or four year old stuff close at hand. Only this season I have been lifting some Standard Apples, which would have been transplanted last year had the labor been available, and they are distinctly better rooted than they were last season. This may sound a fallacy, but it is a fact and quite contrary to what I expected. Moreover, this piece of Apples had not been hoed or dug, and the weeds had been cut down with a "bagging hook." How far the fact that the ground had not been dug or turned in, has to do with this, I cannot say, but it leaves room for thought, as the surface roots were left undamaged. Weeds, we know without a doubt, impoverish a soil and starve trees, but do they make a tree throw out more roots for its sustenance? It is worth while noting that apples grown in grass land are better colored than when grown in cultivated land. Is this because the surface roots on cultivated land are disturbed, and that the tree has to depend on its stronger and tap roots?

My experience in no way inclines me to believe that apples on the Paradise stock are better rooted when left long without transplanting, for the reverse is the case, especially if the trees are grown closely together in the quarters.

Indiana's Apple Crop Worth \$7,500,000

The average person does not realize, perhaps, the importance of the annual apple crop in this state, says the Indianapolis News. Much has been written about the apples of Oregon and Idaho, yet Indiana produces more apples than either of these states. Its apple crop this year is as great as that of California. Its total crop is more than that of Idaho, Montana, Wyoming, Nevada, Utah, New Mexico, Arizona and Texas combined. The United States crop estimate for October gives Indiana a total of 5,571,000 bushels of apples. And this, it may be explained, is considerably below the average crop for the last eight years of 6,283,500 bushels. The state has produced an apple crop this year that is comparatively estimated to be worth \$7,500,000. Another estimate is that there are more than 8,250,000 apple trees in Indiana.

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Trade Bulletins

The Hunters Land Co., Hunters, Wash., this season shipped 8000 boxes of apples.

Liberty Bonds are accepted in full on part payment for trees, by the Silva-Bergtholdt Co., Newcastle, Cal.

Earl Ferris, Hampton, Iowa, nurseryman, is president of the Northwestern Iowa Horticultural Society, as the result of the recent annual meeting.

The Sandy River Fruit Growers Association, Farmington, Maine, has been incorporated with \$10,000 capital stock, by H. A. Titcomb and others.

Vineyardists of Central California received over ten and a half million dollars from the California Associated Raisin Company for their 1916 crop.

The new municipal nursery in Berkeley, Cal., has produced more than 31,000 plants in the last five months. Of this number 16,470 have been transferred to the city parks.

The Silva-Bergtholdt Co., Newcastle, Cal., last month announced: "Good nursery stock is mighty scarce. The visible supply is 50 per cent of normal and the demand heavier than usual."

The Northwestern Peony and Iris Society, of which W. F. Christman, 3304 Fifth Avenue South, Minneapolis, Minn., is secretary, lists 100 desirable peonies and 50 standard irises.

Miles Bryant, of the landscape department of the Bryant Nursery discussed landscape gardening before the Horticultural Society of Northern Illinois, Dec. 5. L. R. Bryant is president of the association.

Pear growers of California with 17000 acres of bearing orchards, 24000 acres not yet in bearing and 6000 acres about to be planted, propose to form a marketing association at a meeting called for January 4, 1918.

T. J. Walker, San Fernando, Cal., and C. D. Hubbard, Carpinteria, Cal., have established the Walker-Hubbard Nursery Company, San Fernando. They will specialize on citrus and tropical fruit trees and will handle a full line of ornamentals.

According to growers at the recent meeting of the Indiana Horticultural Society, nitrate of soda has been producing market results in the growing of apples in Indiana. Great interest was taken in the subject. H. M. Dunlap, Champaign, Ill., was at the meeting to learn directly of results.

The Yacalpa, Cal., Apple Association's harvest this year amounted to 18,000 boxes. This district is about 4,500 feet above sea level and now has planted 6000 acres to apple trees, ranging from one to seven years old.

To assist growers in expanding the peach growing industry in Arkansas the Missouri Pacific R. R. Co., has engaged James H. Hughes, horticulturist. An officer of the company said recently: "The Missouri Pacific railroad has hauled as high as 3,100 cars of peaches from Arkansas in a season. The average value of a car probably was about 1,000, so this was no small item for the state. Of course it is to the railroad's interest to increase the crop, but it is vastly more important to the state."

At the fifty-first annual meeting of the Minnesota Horticultural Society George H. Whiting, nurseryman, Yankton, S. D., discussed "Trees for Street, for Shelter and for Lawn"; Roy D. Underwood, Lake City, Minn., nurseryman, "Minnesota as the Originator of New Fruits"; Henry Dunsmore, nurseryman, Olivia, Minn., "The Top-Worked Fruit Tree"; Charles F. Gardner, nurseryman, Osage, Ia., "The Everbearing Strawberry in 1917"; D. A. Gurney, nurseryman, Yankton, S. D., "Apples and Crabs for the Northwest."

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